Johnson Reservoir
2017 Fall Survey Summary

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Johnson Reservoir is a major reservoir on Central Nebraska Public Power & Irrigation District’s (CNPPID) Supply Canal System downstream of Plum Creek Reservoir. Notice its fluvial behavior at CNPPID’s Reservoir/River Data page. CNPPID manages Johnson Reservoir for hydroelectric power generation and irrigation purposes. There are unique fishing opportunities as a result of this functionality. Notice these aspects on NGPC’s Lake Map.

Information collected from standard surveys allows biologists to evaluate the population density, size structure, and growth rates for several species. This data provides valuable information to guide decision making scenarios that include fish species stocked, stocking rates and fishing regulations. This information also assists Game and Parks staff in guiding anglers to waterbodies that have the desired populations for fishing. For more explanation of what constitutes a fisheries survey read the Survey Says article.

Every fall the fishery of Johnson Reservoir is surveyed with standard sampling methods. The following text and graphs are the result of the 2017 gill net survey. Graphs represent the number of each species captured per gill net by length group. For comparative purposes it shows results from previous years.
The 2017 survey contributed to a downward trend in observed walleye population with only four walleye sampled per gill net. Those sampled had an average length of 15.8”. The 2016 year class was most predominate in this sample. Recruitment of young walleye into the adult population is likely suffering from a high abundance of gizzard shad. Walleye reach 15” in length after approximately three years of growth in Johnson Reservoir.
Sauger

Average length of sauger collected in 2017 was 18”. Sauger in Johnson are reaching 15” after approximately three years of age. They are not stocked in Johnson, but are stocked annually upstream in Midway, Gallagher and Plum Creek reservoirs. Fingerling and fry stockings in these upstream reservoirs are requested for 2018.

Sauger are quite similar in appearance to walleye and harvest is regulated in conjunction for these two species. Access NGPC’s Fish Identification Tool and the 2018 Fishing Guide for details.

White bass

White bass reproduction and recruitment is sporadic. The 2017 survey revealed 12.5 white bass per gill net. The average length captured in 2017 was 9.6” and the longest was 14.4”. These largest specimens were age six. This survey data represents an approximately “average” population but white bass literally “filled” other survey gear indicating that their abundance is greater than the gill net data reveals.
The hybrid striped bass population remains at a low level but during 2017 several small hybrid striped bass were observed. Three were captured per gill net which is the greatest catch since 2008. These fish averaged 9.3” in length. Stocking of wiper in Johnson has been suspended as this species does not produce a consistent fishery in Johnson.

Access [NGPC's Fish Identification tool](#) for hybrid striped bass and white bass differentiation.

A declining trend in abundance was observed in 2017’s data but it still indicates a larger population than many previous years. During 2017, four were sampled per gill net with 50% greater than 24” in length. The largest channel catfish sampled was 31”.
The 2017 survey collected 2 yellow perch per net. Although the overall abundance was low, the 2017 data sampled perch out to 10”. Stockings of yellow perch began in 2007 and a resurgence has been observed and limited angling success has been reported.

Smallmouth bass are sampled on alternate years. The next sample will likely occur during 2018. The 2016 smallmouth bass data was similar to that collected in 2014 with the addition of some large individuals measuring 17”. In 2016, 186 smallmouth were collected per hour of nighttime electrofishing. This value is impressive when compared to other nearby fisheries. Smallmouth anglers have success near rocky shorelines such as the dam and outlet areas.
During 2017, 31.5 crappie were sampled per trap net. This value is lower than some years but size structure looks more favorable. White crappie were the most predominate species of crappie sampled. Only 21% were black crappie. Size structure of both species combined is 36% 5-7.9”, 56% 8-9.9” and 6% over 10”. 
Access

A Memorial for Lynn Bergrenn is planned to be constructed during 2018. This project will include access improvements to the existing breakwater near the inlet boat ramp (pictured below). These improvements will make access along the breakwater easier and provide more surface for an angling platform. This project will provide additional lighting and will create American Disability Act (ADA) approved structures.
Johnson Reservoir receives stockings from NGPC’s Hatchery System every year. Many factors are at play when stocking selections are made. Below you will find Johnson’s stocking history for the past eleven years. For more stocking details access NGPC’s Fish Stocking Reports.

<table>
<thead>
<tr>
<th>Year</th>
<th>Walleye</th>
<th>Hybrid Striped Bass</th>
<th>Yellow Perch</th>
<th>Channel catfish</th>
</tr>
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<tbody>
<tr>
<td>2007</td>
<td>140,000-1.25&quot;</td>
<td>40,475-1.75&quot;</td>
<td>65,973-4&quot;</td>
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<td>2008</td>
<td>100,000-1.1-1.25&quot;</td>
<td>43,780-1.25&quot;</td>
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<tr>
<td>2009</td>
<td>219,525-1.4&quot;</td>
<td>14,763-2&quot;</td>
<td>66,610-3&quot;</td>
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<tr>
<td>2010</td>
<td>219,000-1.5&quot;</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2011</td>
<td>219,473-1.25&quot;</td>
<td></td>
<td>66,674-3&quot;</td>
<td>6,070-7&quot;</td>
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<tr>
<td>2012</td>
<td>219,375-1.3-1.4:&quot;</td>
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<td></td>
<td>37,470-5&quot;</td>
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<tr>
<td>2013</td>
<td>239,082-1.2&quot;</td>
<td>10,963-1.2&quot;</td>
<td>60,048-3&quot;</td>
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<tr>
<td>2014</td>
<td>168,295-1.5&quot;</td>
<td>21,890-1.3&quot;</td>
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<tr>
<td>2015</td>
<td>219,317-1.5&quot;</td>
<td>10,945-1.3&quot;</td>
<td>85,078-2.6-2.8&quot;</td>
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<tr>
<td>2016</td>
<td>218,872-1.5&quot;</td>
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<tr>
<td>2017</td>
<td>219,143-2&quot;</td>
<td></td>
<td>73,489-3&quot;</td>
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</table>
Johnson Lake's water level changes frequently and plays a vital role in the fishery. Follow water level fluctuations at CNPPID's Reservoir Data page.

If you have questions or concerns about Johnson’s fishery please contact

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Distribution of invasive zebra and quagga mussels is getting closer and closer to SW Nebraska. The most recent finding was at Lewis and Clark Reservoir in NE Nebraska during 2015. This map portrays the spread of these invasive mussels and is updated often.

In 2016, Nebraska boaters became required to possess a Aquatic Invasive Species (AIS) Stamp. Residents acquire the stamp when registering their watercraft. Nonresidents have to purchase a physical sticker that must be displayed on their watercraft.
According to Nebraska State Law, it is illegal for watercraft to enter a Nebraska waterbody or leave a launch area while containing water. This includes all containers, compartments, and equipment that are permanently attached to the watercraft.

AND

All aquatic vegetation must be removed from watercraft and trailers before leaving a launch area.

Protect Your Waters—Remember to CLEAN, DRAIN, and DRY!